

Title (en)  
METHOD FOR PRODUCING PROJECTIONS ON A SUBSTRATE

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON PROJEKTIONEN AUF EINEM SUBSTRAT

Title (fr)  
PROCÉDÉ DE PRODUCTION DE PROJECTIONS SUR UN SUBSTRAT

Publication  
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Application  
**EP 17178065 A 20100120**

Priority  

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Abstract (en)  
A process for forming projections (19) on a substrate (11) comprising: providing a mold (15) having an outer surface; providing a substrate material (11) having a surface; providing a device (13) as a source of vibration energy; wherein one or both of said mold (15) and device (13) contain a plurality of cavities (17), said cavities (17) having a shape; positioning said substrate material (11) between said mold (15) and said device (13); applying power to said device (13) wherein a portion of said substrate material (11) enters said cavities (17) in said mold surface; and forming projections (19) on at least a portion of said surface of said substrate material (11), wherein said cavities (17) are shaped to form projections which are shaped as one or more of hooks, mushrooms, angled pins, curved pins, grappling hook, multi-limbed, cross-shaped, Y-shaped and multi-lobed, each having cross-sections which are round, oval, square, rectangular, trapezoidal, solid, hollow and combinations thereof.

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**US 2010180407 A1 20100722; US 8784722 B2 20140722;** AU 2010206837 A1 20110818; AU 2010206837 B2 20151001; AU 2015246136 A1 20151112; AU 2015246136 B2 20170202; CA 2749929 A1 20100729; CA 2749929 C 20151222; CN 102341228 A 20120201; CN 107351371 A 20171117; EP 2379308 A1 20111026; EP 2379308 A4 20150218; EP 2379308 B1 20170628; EP 3243630 A1 20171115; EP 3243631 A1 20171115; EP 3243631 B1 20191023; ES 2648054 T3 20171228; ES 2767739 T3 20200618; HK 1245194 A1 20180824; JP 2012515665 A 20120712; JP 2015192914 A 20151105; JP 2017136404 A 20170810; JP 5792072 B2 20151007; JP 6117296 B2 20170419; JP 6431111 B2 20181128; KR 101663337 B1 20161014; KR 101805341 B1 20171206; KR 20110107373 A 20110930; KR 20160119258 A 20161012; MX 2011007648 A 20111118; MX 364457 B 20190426; PL 2379308 T3 20171229; PL 3243631 T3 20200518; TW 201040016 A 20101116; TW 201625401 A 20160716; TW I511865 B 20151211; TW I556943 B 20161111; US 10076162 B2 20180918; US 10798997 B2 20201013; US 2014264996 A1 20140918; US 2015076727 A2 20150319; US 2017265602 A1 20170921; WO 2010085492 A1 20100729

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